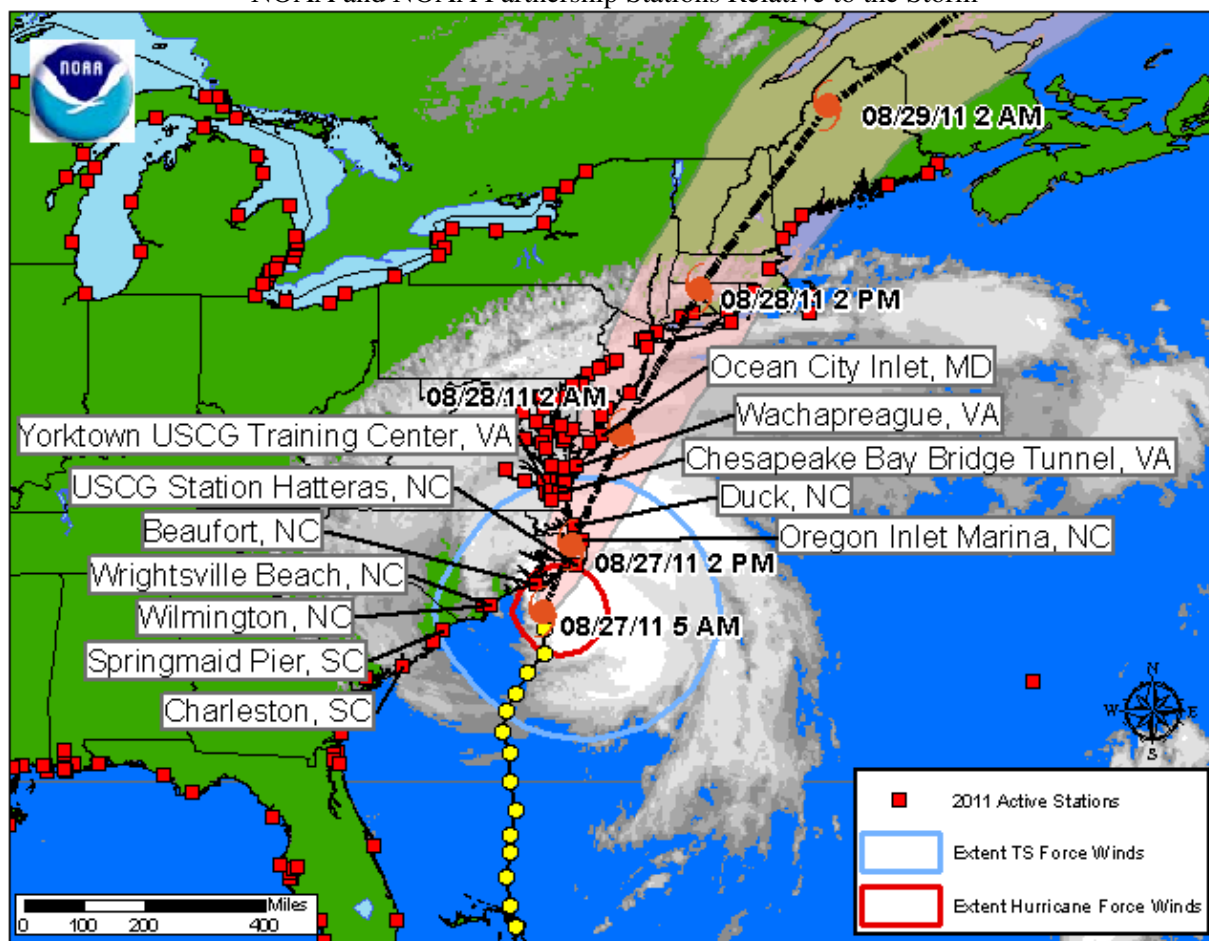




Hurricane IRENE QuickLook
Posted: 06:00 EDT 08/27/2011

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 08/27/2011 06:00 EDT, water levels along the North Carolina coast are being significantly affected by Hurricane Irene. Levels at Wrightsville Beach and Beaufort, NC remain elevated between 1.75 and 3.0 feet above predictions. Water levels at USCG Hatteras and Oregon Inlet Marina, NC are presently 0.5 to 1.5 feet below predictions. Water levels from Duck, NC northward to Ocean City Inlet, MD including the entrance to the Chesapeake Bay are rising and are about 0.5 to 1.5 feet above predictions at this time. Water levels from South Carolina to Florida are falling back towards predicted values.

Winds continue to rise ahead of the storm and range between 25 and 40 kts with gusts as high as 69 kts (measured at USCG Hatteras, NC.) along the North Carolina coast. Winds around the entrance to the Chesapeake Bay are also rising and range between 25 and 35 kts with gusts up to 40 kts. Barometric pressure continues to fall significantly across the region.

Hurricane IRENE QuickLook, POSTED 06:00 EDT 08/27/2011

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to Mean Lower Low Water are:

Wrightsville Beach, NC: Next predicted high tides are 4.2 ft (1.27 m) at 08/27/2011 06:20 EDT and 5.0 ft (1.54 m) at 08/27/2011 18:44 EDT.

Wilmington, NC: Next predicted high tides are 4.4 ft (1.34 m) at 08/27/2011 08:37 EDT and 5.0 ft (1.52 m) at 08/27/2011 21:02 EDT.

Beaufort, NC: Next predicted high tides are 3.3 ft (1.00 m) at 08/27/2011 06:45 EDT and 3.9 ft (1.19 m) at 08/27/2011 19:15 EDT.

USCG Station Hatteras, NC: Next predicted high tides are 0.7 ft (0.20 m) at 08/27/2011 07:47 EDT and 0.6 ft (0.19 m) at 08/27/2011 20:15 EDT.

Oregon Inlet Marina, NC: Next predicted high tides are 1.2 ft (0.37 m) at 08/27/2011 06:52 EDT and 1.5 ft (0.44 m) at 08/27/2011 19:19 EDT.

Duck, NC: Next predicted high tides are 3.5 ft (1.06 m) at 08/27/2011 06:22 EDT and 4.2 ft (1.27 m) at 08/27/2011 18:44 EDT.

Chesapeake Bay Bridge Tunnel, VA: Next predicted high tides are 2.82 ft (0.86 m) at 08/27/2011 07:13 EDT and 3.25 ft (0.99 m) at 08/27/2011 19:37 EDT.

Yorktown USCG Training Center, VA: Next predicted high tides are 2.6 ft (0.78 m) at 08/27/2011 08:13 EDT and 2.0 ft (0.89 m) at 08/27/2011 20:34 EDT.

Wachapreague, VA: Next predicted high tides are 4.3 ft (1.32 m) at 08/27/2011 07:36 EDT and 5.1 ft (1.54 m) at 08/27/2011 20:10 EDT.

Ocean City Inlet, MD: Next predicted high tides are 2.2 ft (0.67 m) at 08/27/2011 06:50 EDT and 2.7 ft (0.82 m) at 08/27/2011 19:31 EDT.

Charleston, SC: Next predicted high tides are 5.5 ft (1.67 m) at 08/27/2011 06:50 EDT and 6.5 ft (1.98 m) at 08/27/2011 19:17 EDT.

Springmaid Pier, SC: Next predicted high tides are 5.3 ft (1.63 m) at 08/27/2011 06:21 EDT and 6.3 ft (1.92 m) at 08/27/2011 18:40 EDT.

For additional data, please see the [Center for Operational Oceanographic Products & Services](#) website. For information on Highest Astronomical Tide (HAT), NAVD88 and other datums, please see [Tidal Datums](#). For more information or archived products and reports, please see the [Storm QuickLook](#) homepage.

Analyst:PFF

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

HURRICANE IRENE ADVISORY NUMBER 28

500 AM EDT SAT AUG 27 2011

...CENTER OF IRENE EXPECTED TO MAKE LANDFALL IN NORTH CAROLINA DURING THE NEXT FEW HOURS...

SUMMARY OF 500 AM EDT...0900 UTC...INFORMATION

LOCATION...34.1N 76.5W
ABOUT 35 MI...55 KM S OF CAPE LOOKOUT NORTH CAROLINA
ABOUT 95 MI...155 KM SW OF CAPE HATTERAS NORTH CAROLINA
MAXIMUM SUSTAINED WINDS...90 MPH...150 KM/H
PRESENT MOVEMENT...NNE OR 20 DEGREES AT 14 MPH...22 KM/H
MINIMUM CENTRAL PRESSURE...952 MB...28.11 INCHES

WATCHES AND WARNINGS

A HURRICANE WARNING IS IN EFFECT FOR...

* LITTLE RIVER INLET NORTH CAROLINA NORTHWARD TO SAGAMORE BEACH
MASSACHUSETTS...INCLUDING THE PAMLICO...ALBEMARLE...AND CURRITUCK
SOUNDS...DELAWARE BAY...CHESAPEAKE BAY SOUTH OF DRUM POINT...NEW YORK
CITY...LONG ISLAND...LONG ISLAND SOUND...COASTAL CONNECTICUT AND RHODE
ISLAND...BLOCK ISLAND...MARTHAS VINEYARD AND NANTUCKET

A TROPICAL STORM WARNING IS IN EFFECT FOR...

* SOUTH SANTEE RIVER SOUTH CAROLINA TO LITTLE RIVER INLET
* CHESAPEAKE BAY FROM DRUM POINT NORTHWARD AND THE TIDAL POTOMAC
* NORTH OF SAGAMORE BEACH TO MERRIMACK RIVER

A TROPICAL STORM WATCH IS IN EFFECT FOR...

* MERRIMACK RIVER TO EASTPORT MAINE

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES...INCLUDING
POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY
YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE. FOR STORM INFORMATION
SPECIFIC TO YOUR AREA OUTSIDE THE UNITED STATES...PLEASE MONITOR PRODUCTS
ISSUED BY YOUR NATIONAL METEOROLOGICAL SERVICE.

DISCUSSION AND 48-HOUR OUTLOOK

AT 500 AM EDT THE CENTER OF HURRICANE IRENE WAS LOCATED ABOUT 35 MI S OF CAPE
LOOKOUT NORTH CAROLINA AND ABOUT 95 MI SW OF CAPE HATTERAS NORTH CAROLINA
NEAR LATITUDE 34.1 NORTH...LONGITUDE 76.5 WEST. IRENE IS MOVING TOWARD THE
NORTH-NORTHEAST NEAR 14 MPH AND THIS GENERAL MOTION IS EXPECTED TO CONTINUE
FOR THE NEXT 24 HOURS. ON THE FORECAST TRACK...THE CENTER OF IRENE WILL MAKE
LANDFALL IN EASTERN NORTH CAROLINA DURING THE NEXT FEW HOURS AND THEN MOVE
ACROSS EASTERN NORTH CAROLINA. THE HURRICANE IS FORECAST TO MOVE NEAR OR
OVER THE MID-ATLANTIC COAST TONIGHT AND MOVE OVER SOUTHERN NEW ENGLAND ON
SUNDAY.

MAXIMUM SUSTAINED WINDS ARE NEAR 90 MPH WITH HIGHER GUSTS. IRENE IS A CATEGORY ONE HURRICANE ON THE SAFFIR-SIMPSON HURRICANE WIND SCALE. LITTLE CHANGE IN STRENGTH IS EXPECTED BEFORE IRENE REACHES THE COAST OF NORTH CAROLINA...AND IRENE IS EXPECTED TO REMAIN NEAR THE THRESHOLD OF CATEGORY ONE AND CATEGORY TWO STRENGTH. SOME WEAKENING IS EXPECTED AFTER IRENE REACHES THE COAST OF NORTH CAROLINA...BUT IRENE IS FORECAST TO REMAIN A HURRICANE AS IT MOVES NEAR OR OVER THE MID-ATLANTIC STATES AND NEW ENGLAND.

HURRICANE FORCE WINDS EXTEND OUTWARD UP TO 90 MILES FROM THE CENTER...AND TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 260 MILES. THE NOAA AUTOMATED STATION AT CAPE LOOKOUT RECENTLY REPORTED SUSTAINED WINDS OF 61 MPH AND A WIND GUST OF 78 MPH. A STORM SPOTTER IN STACY NORTH CAROLINA RECENTLY REPORTED A WIND GUST OF 93 MPH.

THE LATEST MINIMUM CENTRAL PRESSURE REPORTED BY AN AIR FORCE RESERVE HURRICANE HUNTER AIRCRAFT IS 952 MB...28.11 INCHES. A NOAA BUOY IN ONSLOW BAY NORTH CAROLINA RECENTLY REPORTED A PRESSURE OF 963.1 MB...28.44 INCHES.

HAZARDS AFFECTING LAND

WIND...TROPICAL-STORM-FORCE WINDS WILL CONTINUE TO SPREAD INLAND OVER THE WARNING AREA TODAY. HURRICANE-FORCE WINDS ARE SPREADING ONTO THE NORTH CAROLINA COAST...AND SHOULD SPREAD NORTHWARD THROUGH THE HURRICANE WARNING AREA DURING THE DAY. TROPICAL-STORM-FORCE WINDS ARE EXPECTED TO BEGIN ALONG THE MID-ATLANTIC COAST LATER THIS MORNING WITH HURRICANE CONDITIONS EXPECTED BY THIS AFTERNOON. TROPICAL STORM CONDITIONS ARE EXPECTED TO REACH SOUTHERN NEW ENGLAND TONIGHT WITH HURRICANE CONDITIONS EXPECTED ON SUNDAY.

STORM SURGE...AN EXTREMELY DANGEROUS STORM TIDE WILL RAISE WATER LEVELS BY AS MUCH AS 5 TO 9 FEET ABOVE GROUND LEVEL IN THE HURRICANE WARNING AREA IN NORTH CAROLINA...INCLUDING THE ALBEMARLE AND PAMLICO SOUNDS. STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 4 TO 8 FEET ABOVE GROUND LEVEL WITHIN THE HURRICANE WARNING AREA FROM THE NORTH CAROLINA/VIRGINIA BORDER NORTHWARD TO CAPE COD INCLUDING SOUTHERN PORTIONS OF THE CHESAPEAKE BAY AND ITS TRIBUTARIES. NEAR THE COAST...THE SURGE WILL BE ACCOMPANIED BY LARGE...DESTRUCTIVE...AND LIFE-THREATENING WAVES. STORM SURGE VALUES ARE VERY LOCATION-SPECIFIC...AND USERS ARE URGED TO CONSULT PRODUCTS ISSUED BY THEIR LOCAL NATIONAL WEATHER SERVICE OFFICES.

RAINFALL...IRENE IS EXPECTED TO PRODUCE RAINFALL ACCUMULATIONS OF 6 TO 10 INCHES...WITH ISOLATED MAXIMUM AMOUNTS OF 15 INCHES...FROM EASTERN NORTH CAROLINA NORTHWARD THROUGH THE MID-ATLANTIC STATES INTO EASTERN NEW YORK AND WESTERN NEW ENGLAND. THESE RAINS COULD CAUSE WIDESPREAD FLOODING AND LIFE-THREATENING FLASH FLOODS.

SURF...LARGE SWELLS GENERATED BY IRENE ARE AFFECTING PORTIONS OF THE COAST OF THE SOUTHEASTERN UNITED STATES. THESE SWELLS WILL CAUSE LIFE-THREATENING SURF AND RIP CURRENT CONDITIONS.

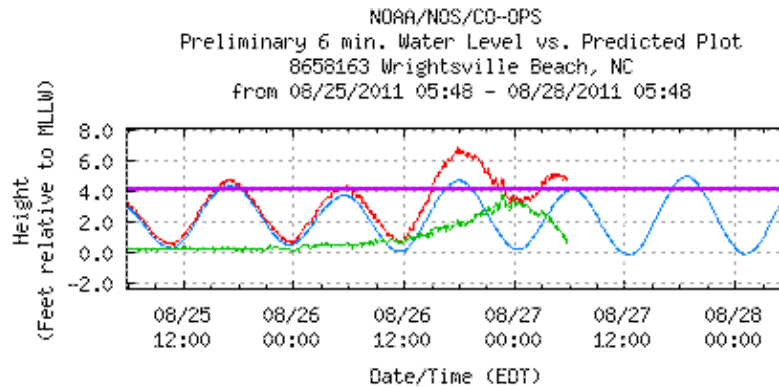
TORNADOES...ISOLATED TORNADOES ARE POSSIBLE OVER EXTREME EASTERN NORTH CAROLINA TODAY.

FORECASTER BEVEN

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [Wrightsville Beach - Barometric](#), [Wilmington - Water Level](#), [Beaufort - Water Level](#), [Beaufort - Winds](#), [Beaufort - Barometric](#), [USCG Station Hatteras - Water Level](#), [USCG Station Hatteras - Winds](#), [Oregon Inlet Marina - Water Level](#), [Oregon Inlet Marina - Winds](#), [Duck - Water Level](#), [Duck - Winds](#), [Duck - Barometric](#), [Duck - Air/Water Temp](#), [Chesapeake Bay Bridge Tunnel - Water Level](#), [Chesapeake Bay Bridge Tunnel - Winds](#), [Ocean City Inlet - Water Level](#), [Wachapreague - Water Level](#), [Wachapreague - Winds](#), [Yorktown USCG Training Center - Water Level](#), [Yorktown USCG Training Center - Winds](#), [Springmaid Pier - Water Level](#), [Springmaid Pier - Winds](#), [Charleston - Water Level](#), [Charleston - Winds](#),

Wrightsville Beach, NC - Return to List



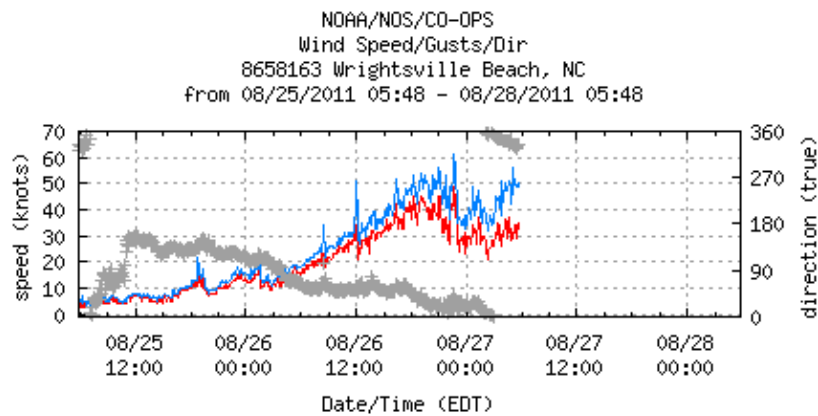
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 05:42 (EDT)

Relative to MLLW: **Observed: 4.72 ft.** **Predicted: 4.04 ft.** **Residual: 0.68 ft.**

Historical Maximum Water Level: Sep 25 2008, 2.81 ft. above MHHW

Wrightsville Beach, NC - Return to List

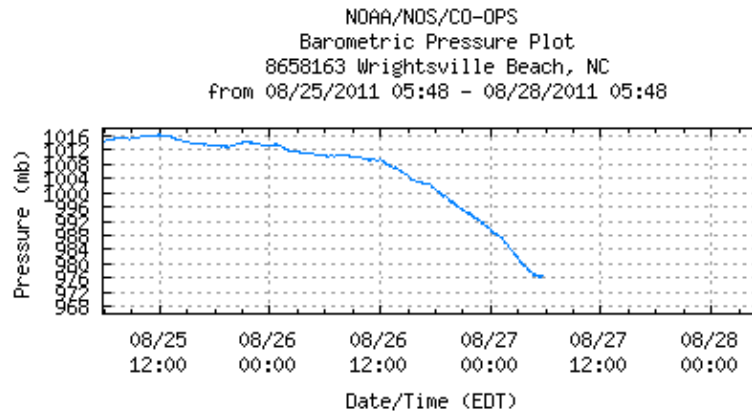


speed — gusts — direction +

Last Observed Sample: 08/27/2011 05:42 (EDT)

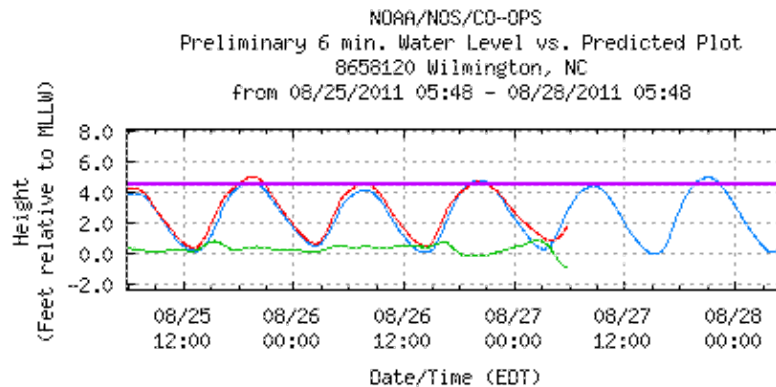
Wind Speed: 35 knots **Gusts: 50 knots** **Direction: 334° T**

Wrightsville Beach, NC - Return to List



barometric pressure —
Last Observed Sample: 08/27/2011 05:42 (EDT)
Barometric Pressure: 976.8 mb

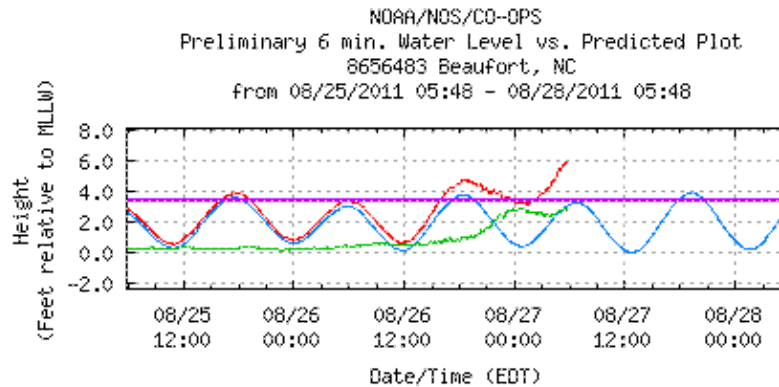
Wilmington, NC - Return to List



Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 05:42 (EDT)
Relative to MLLW: **Observed: 1.81 ft.** **Predicted: 2.71 ft.** **Residual: -0.90 ft.**
Historical Maximum Water Level: Oct 15 1954, 3.47 ft. above MHHW

Beaufort, NC - Return to List

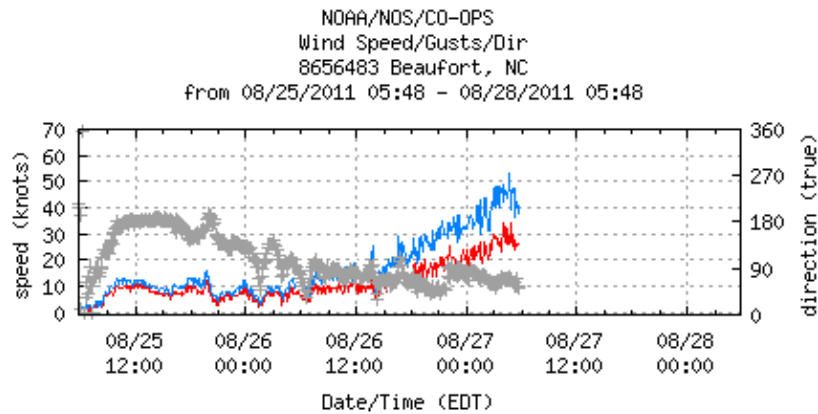


Last Observed Sample: 08/27/2011 05:42 (EDT)

Relative to MLLW: **Observed: 5.84 ft.** **Predicted: 3.04 ft.** **Residual: 2.80 ft.**

Historical Maximum Water Level: Sep 16 1999, 2.74 ft. above MHHW

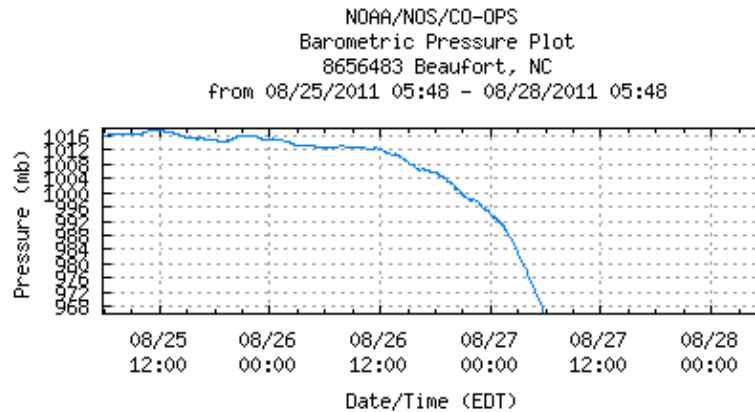
Beaufort, NC - Return to List



Last Observed Sample: 08/27/2011 05:42 (EDT)

Wind Speed: 26 knots **Gusts: 38 knots** **Direction: 56° T**

Beaufort, NC - Return to List

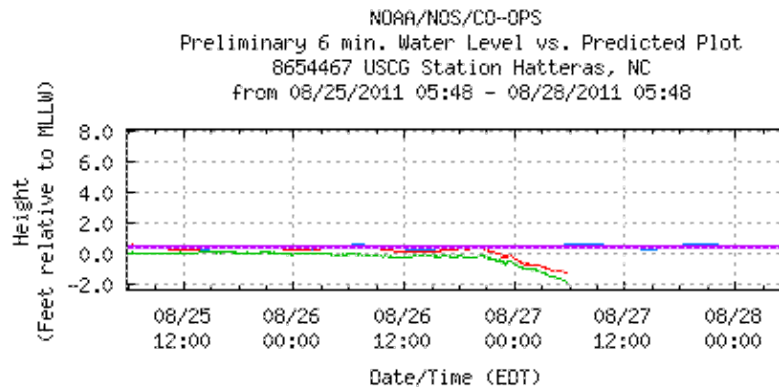


barometric pressure —

Last Observed Sample: 08/27/2011 05:42 (EDT)

Barometric Pressure: 966.4 mb

USCG Station Hatteras, NC - Return to List



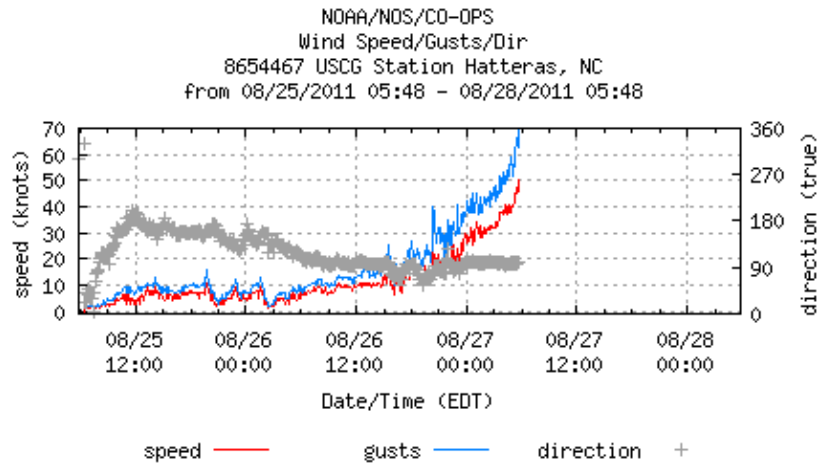
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 05:42 (EDT)

Relative to MLLW: **Observed: -1.31 ft. Predicted: 0.58 ft. Residual: -1.89 ft.**

Historical Maximum Water Level: , 0 ft. above MHHW

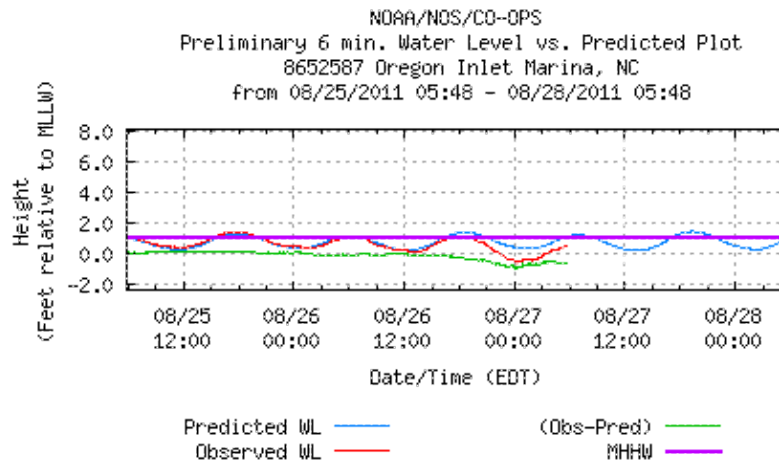
USCG Station Hatteras, NC - Return to List



Last Observed Sample: 08/27/2011 05:42 (EDT)

Wind Speed: 50 knots Gusts: 63 knots Direction: 101° T

Oregon Inlet Marina, NC - Return to List

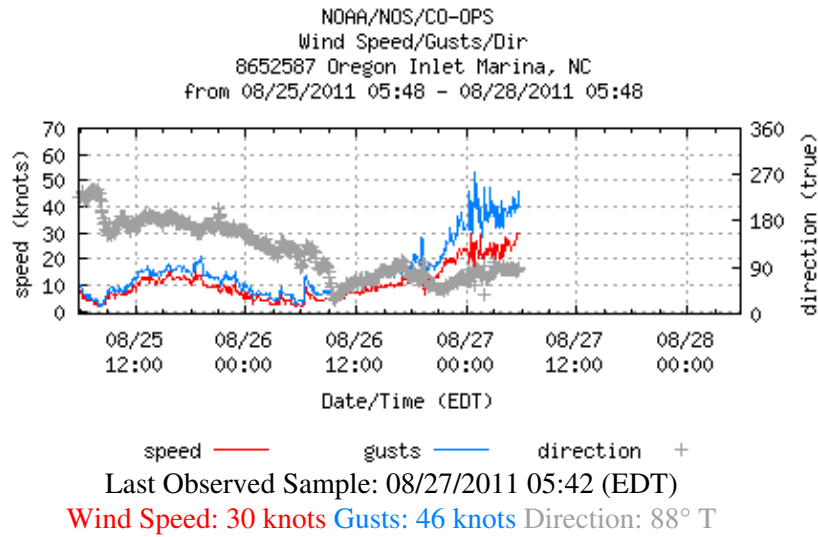


Last Observed Sample: 08/27/2011 05:42 (EDT)

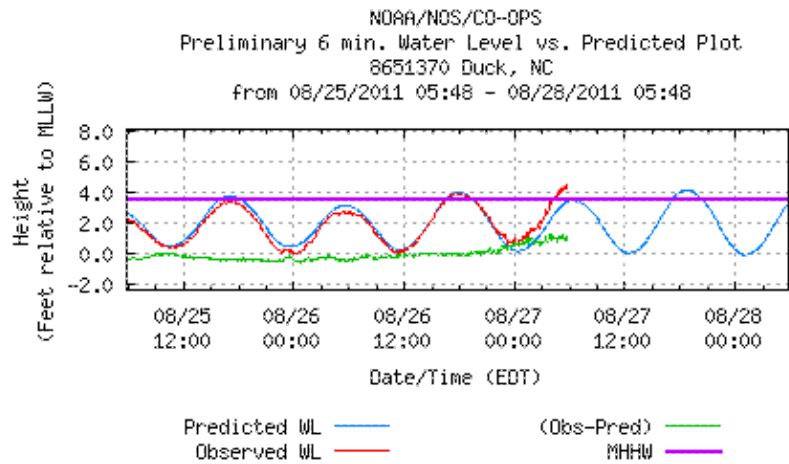
Relative to MLLW: Observed: 0.45 ft. Predicted: 1.13 ft. Residual: -0.68 ft.

Historical Maximum Water Level: Sep 16 1999, 4.48 ft. above MHHW

Oregon Inlet Marina, NC - Return to List

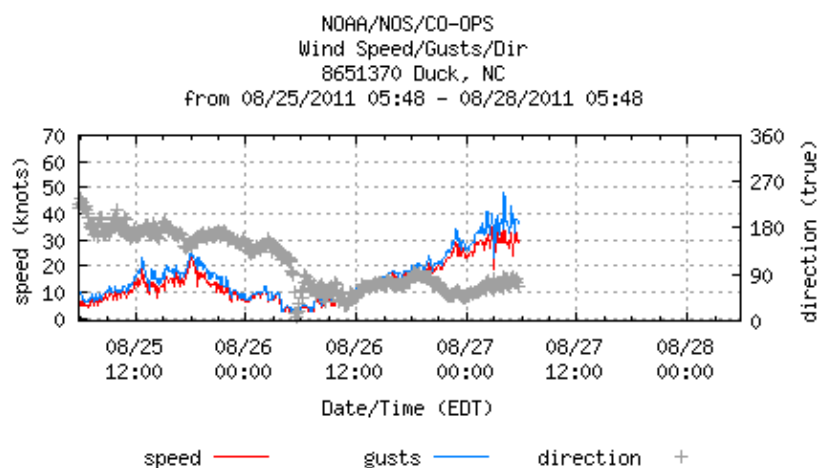


Duck, NC - Return to List



Last Observed Sample: 08/27/2011 05:42 (EDT)
Relative to MLLW: Observed: 4.26 ft. Predicted: 3.39 ft. Residual: 0.87 ft.
Historical Maximum Water Level: Aug 30 1999, 3.23 ft. above MHHW

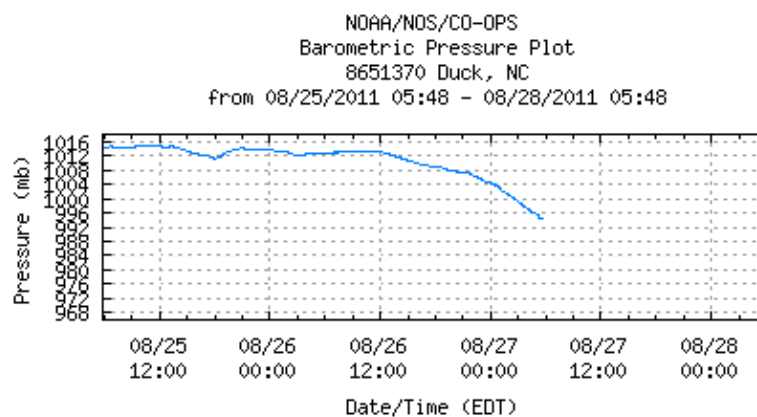
Duck, NC - Return to List



Last Observed Sample: 08/27/2011 05:42 (EDT)

Wind Speed: 29 knots Gusts: 36 knots Direction: 67° T

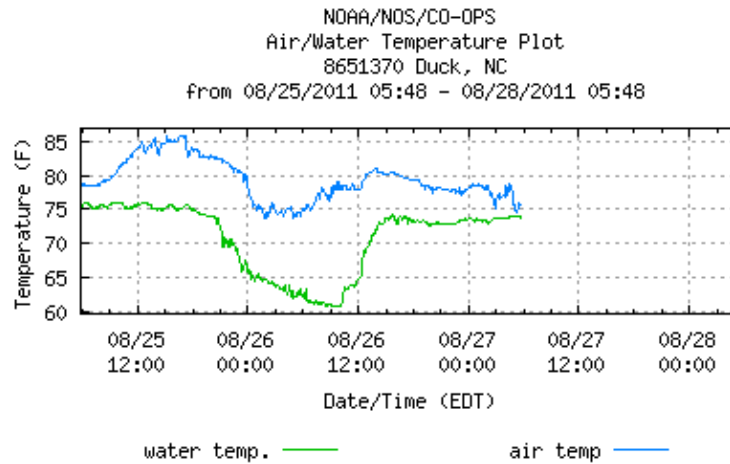
Duck, NC - Return to List



Last Observed Sample: 08/27/2011 05:42 (EDT)

Barometric Pressure: 994.3 mb

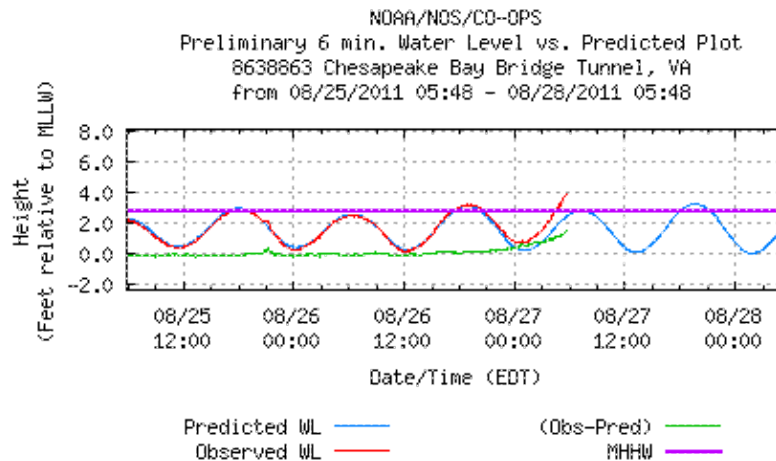
Duck, NC - Return to List



Last Observed Sample: 08/27/2011 05:42 (EDT)

Water Temperature: 73.8° F Air Temperature: 75.7° F

Chesapeake Bay Bridge Tunnel, VA - Return to List

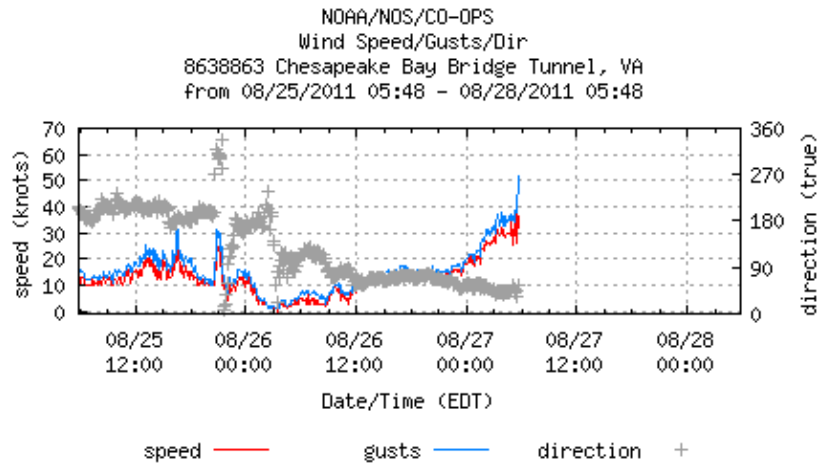


Last Observed Sample: 08/27/2011 05:36 (EDT)

Relative to MLLW: Observed: 3.95 ft. Predicted: 2.42 ft. Residual: 1.53 ft.

Historical Maximum Water Level: Feb 5 1998, 3.68 ft. above MHHW

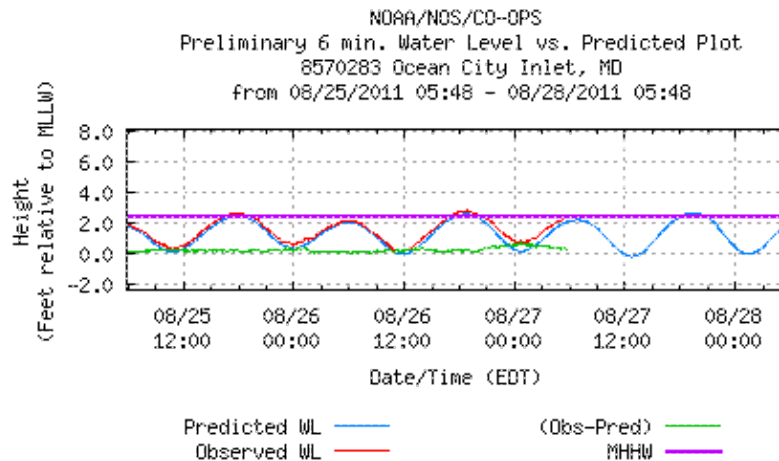
Chesapeake Bay Bridge Tunnel, VA - Return to List



Last Observed Sample: 08/27/2011 05:36 (EDT)

Wind Speed: 36 knots Gusts: 52 knots Direction: 55° T

Ocean City Inlet, MD - Return to List

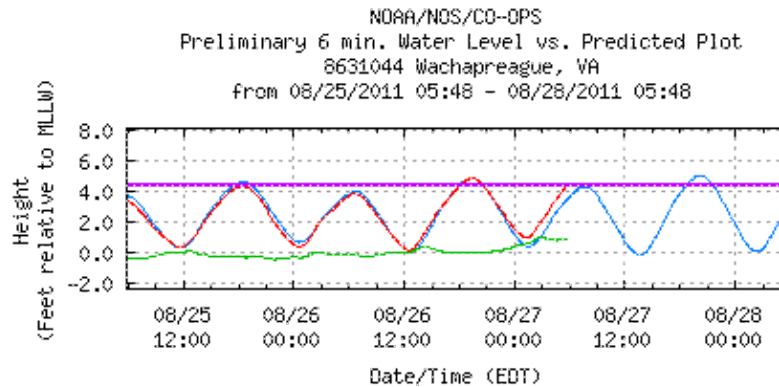


Last Observed Sample: 08/27/2011 05:36 (EDT)

Relative to MLLW: Observed: 2.34 ft. Predicted: 2.04 ft. Residual: 0.30 ft.

Historical Maximum Water Level: Feb 5 1998, 3.61 ft. above MHHW

Wachapreague, VA - Return to List



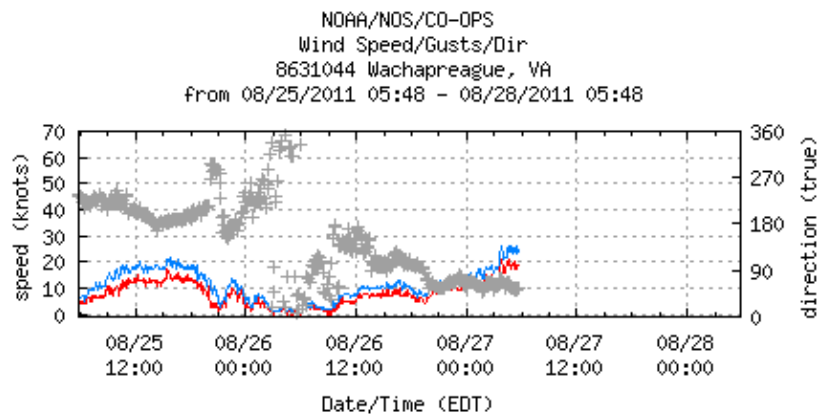
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 05:36 (EDT)

Relative to MLLW: **Observed: 4.33 ft.** **Predicted: 3.43 ft.** **Residual: 0.90 ft.**

Historical Maximum Water Level: Feb 5 1998, 4.41 ft. above MHHW

Wachapreague, VA - Return to List

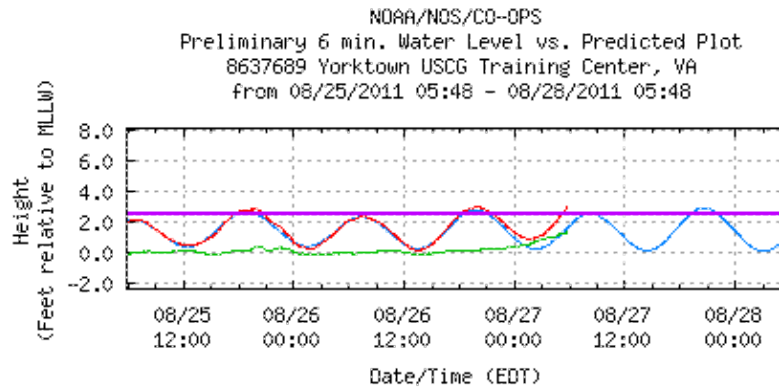


speed — gusts — direction +

Last Observed Sample: 08/27/2011 05:36 (EDT)

Wind Speed: 19 knots **Gusts: 24 knots** **Direction: 55° T**

Yorktown USCG Training Center, VA - Return to List



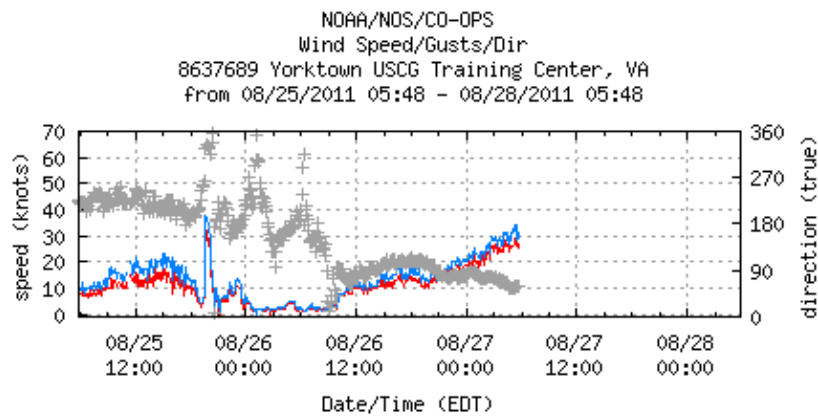
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 05:42 (EDT)

Relative to MLLW: **Observed: 2.96 ft.** **Predicted: 1.60 ft.** **Residual: 1.36 ft.**

Historical Maximum Water Level: Nov 12 2009, 4.27 ft. above MHHW

Yorktown USCG Training Center, VA - Return to List

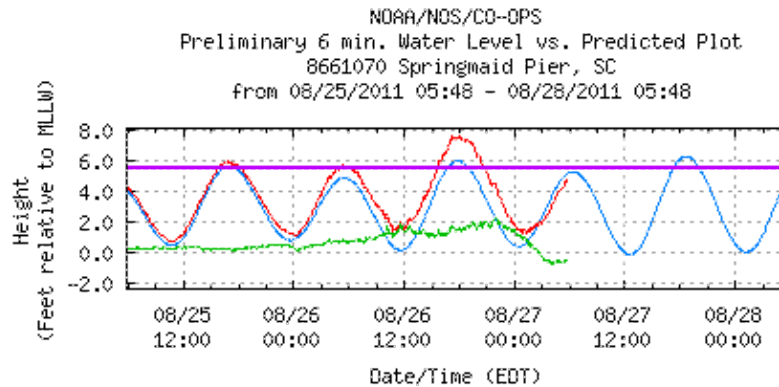


speed — gusts — direction +

Last Observed Sample: 08/27/2011 05:42 (EDT)

Wind Speed: 27 knots **Gusts: 31 knots** **Direction: 61° T**

Springmaid Pier, SC - Return to List



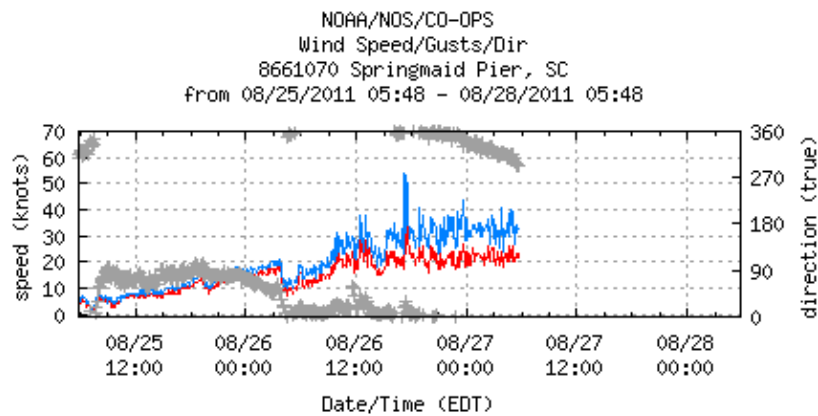
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 05:42 (EDT)

Relative to MLLW: **Observed: 4.74 ft.** **Predicted: 5.19 ft.** **Residual: -0.45 ft.**

Historical Maximum Water Level: Jan 1 1987, 3.65 ft. above MHHW

Springmaid Pier, SC - Return to List

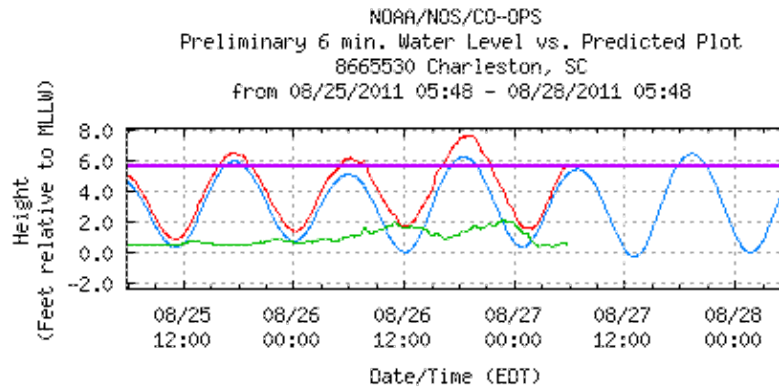


speed — gusts — direction +

Last Observed Sample: 08/27/2011 05:42 (EDT)

Wind Speed: 22 knots **Gusts: 33 knots** **Direction: 294° T**

[Charleston, SC - Return to List](#)



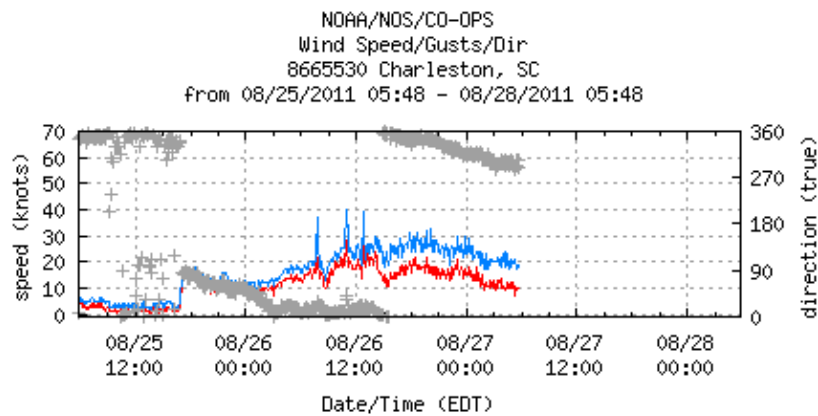
Predicted WL — (Obs-Pred) —
Observed WL — MHHW —

Last Observed Sample: 08/27/2011 05:42 (EDT)

Relative to MLLW: **Observed: 5.66 ft.** **Predicted: 5.12 ft.** **Residual: 0.54 ft.**

Historical Maximum Water Level: Sep 21 1989, 6.76 ft. above MHHW

[Charleston, SC - Return to List](#)



speed — gusts — direction +

Last Observed Sample: 08/27/2011 05:42 (EDT)

Wind Speed: 10 knots **Gusts: 19 knots** **Direction: 291° T**

Hurricane IRENE QuickLook, POSTED 06:00 EDT 08/27/2011

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)
National Oceanic and Atmospheric Administration | U.S. Department of Commerce